YASH GUPTE

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EDUCATION

MS in ECE Engineering
University of Colorado, Boulder
August 2018 – Present [Expected 2020]
GPA:4.0

BE in Electronics
D.J. Sanghvi College Of Engineering, Mumbai, India
July 2013-August 2017
CGPA : 8.24/10

PROFESSIONAL EXPERIENCE

Graduate Student Assistant(GSA)
Practical PCB Design and Manufacture [Spring 2019]
BETiC (IIT Bombay), Mumbai
August 2017-July 2018
Project Research Assistant
Biomedical engineering and technology incubation Centre (BETiC) in IIT Bombay is a **ISO 13485** certified lab facilitating rapid translation of innovative ideas from doctors into high-quality low-cost medical devices suitable for the local population. My roles involved:

- *Developing embedded systems*, Testing code and performing simulations, PCB Designing and milling, Soldering and Testing of circuits.
- *Mentoring* Medical Device competitions organized by BETiC.

RESEARCH PROJECTS

Diabetic Foot Screening Device
[*Patent Pending*]
Sept 2017- Jan2018
Developed a Diabetic Foot Stiffness Device for sensing numbness in foot due to diabetic foot neuropathy. Utilized a **TI-MSP 432**(**Cortex M4**) as the microcontroller and **Python GUI** was used to log data in an excel sheet.

ACADEMIC PROJECTS

Bluetooth Low Energy (BLE) entry registration system [June 2016-April 2017]
Utilized Cypress Semiconductors PSoC4200 and RPI to mark and record attendance on a server.
Circular Buffer with custom UART drivers and TSI Touch interface [Nov-2018]
Wrote custom UART drives and made a Touch pad interface to store user data in Circular Buffers.
Real Time ADC logging with DMA using Double Buffer [Dec 2018]
Differential input ADC logging with implicit lookup tables for approximation of dBFS values.
Hammer Board [Sept 2018]
Load Testing for SMPS.
Cross Talk Board [Jan 2019]
Effects of Cross talk were studies with different signal trace paths and topologies.

NON ACADEMIC PROJECTS

LinkedLists and Queue implementation in Linux Command Line [Sept 2018-Oct 2018]
Incorporated data storage and retrieval using data structures.
Finite State Machine implementation for Traffic Lights [Nov 2018]
Look table type implementation of FSM with state and event driven entries.
LRU Algorithm implementation in C [Jan 2019]
Least Recently used algorithm with arrays in C.
Tic Tac Toe in C [Jan 2019]
Implemented a 2 player game of TicTacToe in C.
SPI Driver [Jan 2019]
Custom SPI driver for MSP432P401R.

TECHNICAL SKILLS

C,C++,Python,Git,CCS,Kinetis,STM32,NXP,GCC,Linux,RaspberryPi,GDB,FTP,BLE,PSoC,IoT,Make,PCB Design, Altium, Mentor Graphics, PCB Milling,LPKF,Keil,OpenCV,UART,FunctionGenerators,Oscilloscopes,DMA,CUnit,Linked Lists,Queues,FSM,LRU,SPI,FAT,DoubleLinkedLists.

CERTIFICATIONS AND COURSES

I. **ARM University Program Training Course** on Embedded System Design and Programming.
II. **Cypress University Alliance Training Program** on Internet of Things (**IoT**)
III. **Embedded Systems and Internet of Things (IoT)**
IV. Fundamentals of Audio and Music Engineering: Part 1: Musical and Sound Electronics from University Of Rochester via Coursera.

AWARDS

I. Stood **1st** in the **Medical Devices Hackathon** (**MEDHA 2017**) - A national level medical device innovation competition.
II. Secured **2nd** position in **Line Follower Competition** (Abhiyantriki 2015) at inter college level.